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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,866	09/30/2003	Hajime Mizutani	U 014835-3	1875
7590 05/05/2005			EXAMINER	
William R. Evans Ladas & Parry 26 West 61 Street New York, NY 10023			LIANG, LEONARD S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/675,866	Applicant(s) MIZUTANI ET AL.	
	Examiner Leonard S. Liang	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07/02/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Specification and Drawings***

The lengthy specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification and drawings.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda et al (US Pat 6528146) in view of Kawasaki (JP Pat 2002195248A).

Okuda et al discloses:

- A transferring pressure roll which press-bonds a transferable protective layer onto an ink jet-recorded image surface by pressing a laminated sheet under heating from a side of a transferring film, the laminated sheet including a recording material having the ink jet-recorded image surface with numeral raised portions having a height of from 5 to 20 μm formed on a recording sheet at a pitch of from 50 to 500 μm (figure 1, reference 3; column 4, lines 35-40) and the transferring film having the transferable

protective layer provided on a heat-resistant substrate made of a polyethylene terephthalate film laminated on each other in such an arrangement that the ink jet recording surface and the transferable protective layer are opposed to each other, the transferring pressure roll (column 4, lines 53-63); a cylindrical roll main body (figure 1, reference 6)

- {claim 4} A transferring unit (figure 1); a laminated sheet forming portion forming a laminated sheet by laminating a recorded material and a transferring film in such a manner that a transferring film having a transferable protective layer provided on a heat-resistant substrate made of a polyethylene terephthalate film is fed onto the recording material having an ink jet-recorded image surface with numeral raised portions having a height of from 5 to 50 μm formed on a recording sheet at a pitch of from 50 to 500 μm , so that whereby the ink jet recorded surface and a surface of the transferable protective layer are opposed to each other (figure 1; column 4, lines 3-63); a press-bonding portion heating and pressing the laminated sheet for press-bonding the transferable protective layer onto the ink jet-recorded image surface (column 5, lines 35-51); a peeling portion peeling the heat-resistant substrate off the laminated sheet passed through the press-bonding portion (column 4, lines 53-63); wherein the press-bonding portion includes a transferring pressure roll and a receiving member and is arranged such that the laminated sheet is

Art Unit: 2853

passed through a gap between the transferring pressure roll and the receiving member (figure 1)

- {claim 6} wherein the thickness of the transferable protective layer is from 2 to 20 um (column 5, lines 5-20)
- {claim 7} wherein the transferable protective layer is selected from the group consisting of vinyl chloride/vinyl acetate type polymers, styrene type polymers, and acrylic type polymers (column 5, lines 1-4)
- {claim 8} an ink jet recording apparatus comprising (figure 1); an ink jet recording portion forming an ink jet image by injecting an ink onto a recording surface of a recording sheet including numeral raised portions having a height of from 5 to 20 um formed thereon at a pitch of from 50 to 500 um to form an ink jet image thereon (figure 1; column 4, lines 35-63); a protective layer forming portion for subjecting a transferring film including a transferable protective layer provided on a heat-resistant substrate made of a polyethylene terephthalate film to heat transfer so that the transferable protective layer is transferred onto the recording surface on which the ink jet image is formed, wherein the protective layer forming portion is formed by a transferring unit (figure 1; column 4, lines 35-63)

Okuda et al differs from the claimed invention in that it does not disclose:

- {claim 1} an elastic material layer which covers a surface of the roll main body and comes in contact with the transferring film during pressing, wherein a hardness of the elastic material constituting the

elastic material layer is set in a value less than HA40 as measured by a measuring method defined in JIS-K6253

- {claim 2} wherein the elastic material is any of silicone rubber, natural rubber, synthetic natural rubber, styrene rubber, butadiene rubber, chloroprene rubber, butyl rubber, nitrile rubber, ethylene propylene rubber and fluororubber
- {claim 3} wherein the thickness of the elastic material layer is from 0.2 to 5 mm

Kawasaki discloses:

- {claim 1} an elastic material layer which covers a surface of the roll main body (abstract), wherein a hardness of the elastic material constituting the elastic material layer is set in a value less than HA40 as measured by a measuring method defined in JIS-K6253 (abstract)
- {claim 2} wherein the elastic material is any of silicone rubber, natural rubber, synthetic natural rubber, styrene rubber, butadiene rubber, chloroprene rubber, butyl rubber, nitrile rubber, ethylene propylene rubber and fluororubber (abstract)
- {claim 3} wherein the thickness of the elastic material layer is from 0.2 to 5 mm (abstract)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Kawasaki into the invention of Okuda et al. The motivation for the skilled artisan in doing so is to gain the benefit of providing a pressure roller used for a fixing device capable of forming high quality pictures having

Art Unit: 2853

no errors such as smearing and the like and also having superior durability (abstract).

The combination naturally suggests that the elastic material layer comes in contact with the transferring film during pressing.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda et al (US Pat 6528146) in view of Kawasaki (JP Pat 2002195248A), as applied to claim 5 above, and further in view of Onishi et al (US PgPub 20030076395).

Okuda et al, as modified, teaches all limitations of the claimed invention except for the following: wherein the thickness of the heat-resistant substrate is from 4 to 20 um.

Onishi et al discloses the heat resistant substrate has a thickness of 10 to 200 um (paragraph 41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Onishi et al into the invention of modified Okuda et al. The motivation for the skilled artisan in doing so is to gain the benefit of providing adequate support to retain its shape under predetermined heat and pressure conditions (paragraph 0040).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suzuki (US Pat 6540860) discloses an image forming method.

Kasperchik et al (US Pat 6654040) discloses a method for creating durable electrophotographically printed color transparencies using clear hot stamp coating.

Art Unit: 2853

Kline et al (US Pat 6802355) discloses an overcoat application peel apparatus.

Kishino et al (US Pat 6377777) discloses a fluorine-containing resin-coated pressure roller and heat-fixing device.

Miyamoto et al (US PgPub 20030137572) discloses an ink jet recording apparatus, ink-jet recording method and ink jet recording medium.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lsl

04/27/05


MANISH S. SHAH
PRIMARY EXAMINER

5/2/05